

# Worker Remittances in the Arab World: Blessing or Burden?

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*Controversy has surrounded the question of how worker remittances affect development in the labor-exporting countries. Can these remittances be channeled into productive investment, or do they merely exacerbate problems relating to balance of payments and foreign exchange? Here, in exploring these issues with reference to the Arab world, it is found that remittances have contributed marginally at best to development while fueling inflation.*

## INTRODUCTION

In recent years, the trade in human capital in the Arab world has generated significant financial flows in the form of remittances in the nonoil-producing states. In a number of cases these flows have greatly exceeded earnings from commodity trade. The resulting expansion in aggregate demand in these countries, unaccompanied in the short run by any increase in domestic supply, led to pressure on both the price level and the current account of the balance of payments. One theory is that such pressure together with the inadequacies of domestic capital markets work to inhibit the optimal employment of emigrants' remittances. Rather than financing capital accumulation in productive activity, it is suggested, a large proportion of these funds flowed into increased levels of consumption.<sup>1</sup>

To date, this assertion has been supported with largely anecdotal evidence. My purpose here is to examine these issues. Do worker remittances affect the macroeconomic development patterns in the Arab world in a manner significantly different

from other sources of foreign exchange? If so, in what sense? What are the policy implications for the exporting countries?

### PATTERNS OF REMITTANCES

By the early 1980s, there were probably some six million migrant workers in the six Gulf states, of whom over two million were Arabs, about 3.7 million from Asia, and the rest from Africa, Europe, and the Americas. This compares with only about 660,000 migrant workers in 1970, the product of the earlier boom, and 1,250,000 in 1975—perhaps a fifth of whom were Asians.

Obviously, the migration of labor has been tied very closely to the oil price boom. This has occurred in two important ways: it was the boom that vastly increased the demand for labor in the oil-exporting countries, while at the same time giving the labor-sending countries every incentive to try to compensate for the crippling rise in the cost of their oil imports by encouraging their citizens to work abroad and remit as much as possible.

There is considerable controversy about the actual magnitude of remittances in the region. It is apparent that underreporting is a problem. Formal channels capture only part of the remittances, but the exact percentage is far from clear.<sup>2</sup> Research on remittances from France to North Africa, for example, suggests that around 20 percent of remittances are not transmitted by money order but through less formal channels. Remittances may also be made in kind, with the goods sometimes being resold after clearing customs—a practice that exporting governments are trying to eliminate.<sup>3</sup>

In terms of the official statistics, remittances are included in the balance of payments figures under "unrequited transfers." These are offsetting entries for the provision of real resources or financial items by one economy to another without a *quid pro quo*. This means that whenever a given economy does not receive (supply) a recompense in the form of real resources or financial items for goods, services, or capital supplied to (or received from) another economy, the balance of payments statement records an unrequited transfer. The value of the unrequited transfer has to be the same as that of the real and financial resources for which the unrequited transfers are offsets.

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TABLE 1

**Worker Remittances in the Arab World:  
Labor Exporters, 1976-1981  
(millions of US dollars)**

Country	1976	1977	1978	1979	1980	1981
Jordan receipts	410.9	469.9	522.0	601.0	794.4	1032.5
Jordan payments	-24.4	-54.4	-67.7	-100.5	-161.8	-162.3
Jordan net	386.5	415.5	454.3	500.5	632.6	870.2
Algeria receipts	451.4	370.1	419.4	444.4	451.6	465.8
Algeria payments	-63.5	-84.1	-112.7	-130.5	-165.3	-149.8
Algeria net	387.9	286.0	306.7	313.9	286.3	316.0
Syria receipts	53.1	92.2	636.0	901.8	773.1	583.3
Syria payments	0.0	0.0	0.0	0.0	0.0	0.0
Syria net	53.1	92.2	636.0	901.8	773.1	583.3
Somalia receipts	1.4	3.2	78.1	36.7	57.3	56.2
Somalia payments	-0.2	-0.9	-0.1	-0.8	0.0	-2.7
Somalia net	1.2	2.3	78.0	35.9	57.3	53.5
Egypt receipts	841.6	987.7	1824.2	2268.8	2791.7	2229.9
Egypt payments	0.0	0.0	0.0	0.0	0.0	0.0
Egypt net	841.6	987.7	1824.2	2268.8	2791.7	2229.9
Morocco receipts	547.2	588.4	762.5	948.3	1054.2	1012.9
Morocco payments	-48.5	-52.5	-62.6	-68.5	-65.1	-47.2
Morocco net	498.7	535.9	699.9	879.8	989.1	965.7
Yemen AR receipts	795.1	1256.1	1286.3	1239.2	1321.5	975.2
Yemen AR payments	-118.6	-243.0	-345.3	-284.0	-231.7	-185.6
Yemen AR net	676.5	1013.1	941.0	955.2	1089.8	789.6
PDR Yemen receipts	120.8	191.4	257.7	322.2	352.3	409.5
PDR Yemen payments	-1.5	-4.1	-2.9	-5.2	-4.9	-5.0
PDR Yemen net	119.3	187.3	254.8	317.0	374.4	405.5
Tunisia receipts	142.0	161.1	221.6	282.9	318.9	357.3
Tunisia payments	-9.2	-11.7	-15.0	-14.2	-14.3	-11.8
Tunisia net	132.8	149.4	206.6	268.2	304.6	345.5
Sudan receipts	40.1	40.4	68.9	127.6	262.6	379.8
Sudan payments	-2.3	-2.9	-2.9	-12.1	-43.6	-54.7
Sudan net	37.8	37.5	66.0	115.5	219.0	325.1

Source: Arab Monetary Fund, *Balance of Payments and External Public Debt of Arab Countries, 1976-1986* (Abu Dhabi: Arab Monetary Fund, September 1988).

TABLE 2

Worker Remittances in the Arab World:  
Labor Exporters, 1982-1986  
(millions of US dollars)

Country	1982	1983	1984	1985	1986
Jordan receipts	1084.0	1109.9	1235.6	1021.8	1185.3
Jordan payments	-177.1	-200.5	-253.9	-235.9	-274.0
Jordan net	906.9	909.4	981.7	785.9	911.3
Algeria receipts	513.4	397.7	333.1	332.0	309.7
Algeria payments	-127.0	-156.1	-141.5	-131.0	-100.9
Algeria net	386.4	241.6	191.6	201.0	208.8
Syria receipts	446.0	460.7	na	na	na
Syria payments	0.0	0.0	0.0	0.0	0.0
Syria net	446.0	460.7	na	na	na
Somalia receipts	20.0	21.7	169.4	38.2	na
Somalia payments	-6.2	-2.6	-6.5	-18.8	-22.6
Somalia net	13.8	19.1	162.9	19.4	na
Egypt receipts	2480.7	3688.1	3981.1	3216.5	2515.3
Egypt payments	0.0	0.0	0.0	0.0	0.0
Egypt net	2480.7	3688.1	3981.1	3216.5	2515.3
Morocco receipts	849.0	916.1	872.3	967.6	1398.5
Morocco payments	-37.5	-34.2	-26.7	-17.3	-15.3
Morocco net	811.5	881.9	845.6	950.4	1374.2
Yemen AR receipts	1176.3	1222.6	1065.8	943.8	783.6
Yemen AR payments	-249.9	-130.6	-69.8	-68.6	-87.9
Yemen AR net	926.4	1092.0	996.0	875.2	695.7
PDR Yemen receipts	474.5	490.8	505.5	429.1	283.4
PDR Yemen payments	-4.6	-4.4	-6.0	-3.5	-1.8
PDR Yemen net	469.0	486.4	499.5	425.6	281.6
Tunisia receipts	372.0	359.2	316.7	271.1	361.3
Tunisia payments	-12.1	-8.6	-10.3	-11.2	-3.5
Tunisia net	359.9	350.6	306.4	259.9	357.8
Sudan receipts	130.7	274.8	283.7	258.9	115.0
Sudan payments	-25.4	-28.5	-8.0	-11.8	-25.0
Sudan net	105.3	246.3	275.7	247.1	90.0

Source: Arab Monetary Fund, *Balance of Payments and External Public Debt of Arab Countries, 1976-1986* (Abu Dhabi: Arab Monetary Fund, September 1988).

TABLE 3

**Worker Remittances in the Arab World:  
Labor Importers, 1976-1981  
(millions of US dollars)**

Country	1976	1977	1978	1979	1980	1981
Saudi Arabia receipts	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia payments	-988.3	-1506.1	-2844.5	-3365.7	-4093.2	-5348.9
Saudi Arabia net	-988.3	-1506.1	-2844.5	-3365.7	-4093.2	-5348.9
Oman receipts	0.0	0.0	28.8	32.3	35.1	41.3
Oman payments	-219.4	-221.8	-241.6	-281.7	-397.0	-497.6
Oman net	-219.4	-221.8	-212.8	-249.4	-361.9	-456.3
Kuwait receipts	0.0	0.0	0.0	0.0	0.0	0.0
Kuwait payments	-315.2	-307.1	-433.2	-532.3	-692.4	-688.7
Kuwait net	-315.2	-307.1	-433.2	-532.3	-692.4	-688.7
Libya receipts	0.0	0.0	0.0	0.0	0.0	0.0
Libya payments	-243.6	-839.4	-931.5	-832.0	-1051.6	-1530.6
Libya net	-243.6	-839.4	-931.5	-832.0	-1051.6	-1530.6
Bahrain receipts	0.0	0.0	0.0	0.0	0.0	0.0
Bahrain payments	-252.7	-300.5	-386.4	-278.8	-285.2	-317.6
Bahrain net	-252.7	-300.5	-386.4	-278.8	-285.2	-317.6
Mauritania receipts	0.5	0.4	0.5	2.3	5.6	3.7
Mauritania payments	-24.9	-22.3	-21.2	-32.2	-32.1	-21.5
Mauritania net	-24.4	-29.1	-20.7	-29.9	-26.5	-17.8

*Source: Arab Monetary Fund, Balance of Payments and External Public Debt of Arab Countries, 1976-1986 (Abu Dhabi: Arab Monetary Fund, September 1988).*

TABLE 4

Worker Remittances in the Arab World:  
Labor Importers, 1982-1986  
(millions of US dollars)

Country	1982	1983	1984	1985	1986
Saudi Arabia receipts	0.0	0.0	0.0	0.0	0.0
Saudi Arabia payments	-5346.7	-5236.0	-5282.9	-5199.4	-4804.3
Saudi Arabia net	-5346.7	-5236.0	-5282.9	-5199.4	-4804.3
Oman receipts	43.1	43.8	43.1	43.7	38.7
Oman payments	-596.2	-735.5	-860.0	-946.3	-890.5
Oman net	-553.1	-691.7	-816.9	-902.6	-851.8
Kuwait receipts	0.0	0.0	0.0	0.0	0.0
Kuwait payments	-875.5	-864.8	-962.5	-1043.7	-1084.0
Kuwait net	-875.5	-864.8	-962.5	-1043.7	-1084.0
Libya receipts	0.0	0.0	0.0	0.0	0.0
Libya payments	-1574.3	-2032.2	na	na	na
Libya net	-1574.3	-2032.2	na	na	na
Mauritania receipts	2.3	1.2	0.9	0.8	1.9
Mauritania payments	-31.5	-27.2	-24.1	-24.3	-29.7
Mauritania net	-29.2	-26.0	-23.2	-23.5	-27.8
Bahrain receipts	0.0	0.0	0.0	0.0	0.0
Bahrain payments	-322.1	-298.4	-331.7	-402.2	-706.4
Bahrain net	-322.1	-298.4	-331.7	-402.2	-706.4

Source: Arab Monetary Fund, *Balance of Payments and External Public Debt of Arab Countries*, 1976-1986 (Abu Dhabi: Arab Monetary Fund, September 1988).

Several trends stand out in the recorded<sup>4</sup> volume of remittances (Tables 1-4):

1. Despite the post-1982 fall in oil prices and revenues, several of the Arab labor-exporting countries have been able to maintain and even increase their remittances. For example, Jordan's remittances in 1986 were higher than those received at the height of the oil boom (1981). The same is also true of Tunisia and Egypt, although in the latter case the 1986 level of remittances was lower than that for 1980.

2. The usual case in recent years, however, has been a fall-off in remittances. This decline has been fairly dramatic for several of the major exporters, including the two Yemens and Sudan.

3. The labor importers are dominated by Saudi Arabia. Although this country's remittances have fallen off somewhat in recent years, the 1986 figures had not declined in a manner commensurate with the country's oil revenues. Whereas oil revenues have fallen from around \$95 billion in 1981 to about \$20 billion in 1986, remittances declined from \$5.3 billion (1981) to \$4.9 billion (1986).

4. On the other hand, several of the labor importers actually had higher levels of remittance payments in 1986 than in the early 1980s. Kuwait, the second largest labor importer, actually had significantly larger remittances in 1986 than at the height of the second oil boom (1981-1982). The same applies to Bahrain, whose remittances in 1982 were over twice those of 1980. The same is also true of Oman.

How significant are these foreign currency inflows for the recipient countries? Again, while the amounts of the remittances are most likely understated, it is still apparent that they account for significant shares of gross national product. The following patterns are of particular interest (Tables 5, 6):

1. Most important, it is apparent that many of the countries receive a significant proportion, often well over half, of their foreign exchange from remittances. Jordan falls into this category, as do Egypt and Sudan in recent years. As is well known, the Yemens receive most of their foreign exchange from this source.

2. Although leveling off in absolute terms in recent years, remittances have been increasing as a share of export earnings for several of the major exporters: Jordan, Egypt, the Yemens, Tunisia, and Sudan have all had remittances score significant increases in their share of exports.

3. On the other hand, there has been a leveling off or even a slight decline in the importance of remittances in the overall gross domestic product of several of the major labor exporters. These include PDR Yemen and perhaps Jordan and Egypt. Remittances have increased in relative importance in the economies of Yemen Arab Republic and perhaps Sudan.

TABLE 5

Relative Share of Worker Remittances in  
the Arab World: Labor Exporters, 1976-1980

(Ratio of remittances to:)

Country	1976	1977	1978	1979	1980
Jordan GDP	0.30	0.27	0.22	0.20	0.19
Jordan imports	0.30	0.25	0.23	0.18	0.20
Jordan exports	0.70	0.60	0.52	0.44	0.40
Algeria GDP	0.02	0.01	0.01	0.01	0.01
Algeria imports	0.06	0.03	0.03	0.03	0.02
Algeria exports	0.07	0.05	0.05	0.08	0.02
Syria GDP	0.01	0.01	0.08	0.09	0.06
Syria imports	0.02	0.03	0.24	0.25	0.17
Syria exports	0.04	0.07	0.52	0.47	0.32
Somalia GDP	0.01	0.01	0.06	0.03	0.04
Somalia imports	0.01	0.01	0.28	0.09	0.12
Somalia exports	0.01	0.03	0.71	0.34	0.43
Egypt GDP	0.05	0.05	0.07	0.13	0.11
Egypt imports	0.18	0.15	0.22	0.29	0.23
Egypt exports	0.29	0.22	0.37	0.47	0.27
Morocco GDP	0.05	0.05	0.05	0.06	0.06
Morocco imports	0.14	0.13	0.18	0.19	0.19
Morocco exports	0.28	0.27	0.31	0.32	0.29
Yemen AR GDP	0.08	0.10	0.11	0.12	0.13
Yemen AR imports	0.15	0.19	0.17	0.17	0.18
Yemen AR exports	1.95	3.53	2.45	1.80	2.12
PDR Yemen GDP	0.38	0.48	0.55	0.59	0.56
PDR Yemen imports	0.39	0.45	0.58	0.65	0.54
PDR Yemen exports	1.44	2.12	2.89	3.10	3.87
Tunisia GDP	0.03	0.03	0.03	0.04	0.04
Tunisia imports	0.08	0.07	0.09	0.08	0.08
Tunisia exports	0.10	0.10	0.11	0.10	0.09
Sudan GDP	0.01	0.01	0.01	0.02	0.03
Sudan imports	0.03	0.03	0.05	0.11	0.11
Sudan exports	0.06	0.06	0.11	0.19	0.18

Source: Arab Monetary Fund, *Balance of Payments and External Public Debt of Arab Countries, 1976-1986* (Abu Dhabi: Arab Monetary Fund, September 1988).



TABLE 6

Relative Share of Worker Remittances in  
the Arab World: Labor Exporters, 1981-1985

(Ratio of remittances to:)

Country	1981	1982	1983	1984	1985
Jordan GDP	0.24	0.24	0.23	0.25	0.20
Jordan imports	0.21	0.21	0.23	0.25	0.21
Jordan exports	0.46	0.48	0.52	0.51	2.11
Algeria GDP	0.01	0.01	0.01	0.01	0.01
Algeria imports	0.02	0.03	0.02	0.02	0.02
Algeria exports	0.02	0.03	0.02	0.01	0.04
Syria GDP	0.03	0.03	0.02	na	na
Syria imports	0.11	0.10	0.09	na	na
Syria exports	0.22	0.18	0.19	na	na
Somalia GDP	0.02	0.01	0.01	0.12	0.03
Somalia imports	0.12	0.03	0.05	0.38	0.08
Somalia exports	0.31	0.01	0.14	1.35	0.22
Egypt GDP	0.08	0.08	0.10	0.10	0.07
Egypt imports	0.19	0.21	0.32	0.30	0.24
Egypt exports	0.29	0.28	0.42	0.44	1.30
Morocco GDP	0.07	0.05	0.07	0.07	0.08
Morocco imports	0.19	0.16	0.22	0.20	0.23
Morocco exports	0.31	0.26	0.30	0.28	0.46
Yemen AR GDP	0.14	0.26	0.28	0.28	0.24
Yemen AR imports	0.19	0.40	0.52	0.60	0.58
Yemen AR exports	1.64	4.41	4.44	4.64	18.66
PDR Yemen GDP	0.53	0.52	0.48	0.46	0.38
PDR Yemen imports	0.49	0.54	0.52	0.49	0.39
PDR Yemen exports	4.14	4.39	4.16	3.81	8.39
Tunisia GDP	0.04	0.04	0.04	0.04	0.03
Tunisia imports	0.08	0.09	0.10	0.08	0.08
Tunisia exports	0.10	0.12	0.12	0.11	0.19
Sudan GDP	0.03	0.01	0.04	0.03	0.04
Sudan imports	0.15	0.06	0.12	0.15	0.20
Sudan exports	0.22	0.08	0.22	0.25	0.50

Source: Arab Monetary Fund, *Balance of Payments and External Public Debt of Arab Countries, 1976-1986* (Abu Dhabi: Arab Monetary Fund, September 1988).

## BENEFITS AND COSTS OF REMITTANCES

The monetary consequences from remittances are considerable. First, by relieving the intensity of the foreign exchange constraint that characterizes the poorer countries of the region, these remittances might underwrite a higher domestic growth rate. Since development projects require mobilizing a mixture of foreign and domestic resources, the more foreign exchange available to the country, the more domestic resources it is able to utilize.<sup>5</sup> This is the foreign trade multiplier effect, which can be especially strong in countries lacking other major sources of foreign exchange.<sup>6</sup>

As mentioned, however, remittances may lose, through induced offsetting effects, much of their potential contribution to the growth of the exporting countries. One problem is inflation. Money sent back to the labor-exporting country will be used by recipients to increase their general level of consumption and foster appetites for many items that in the short run are not in adequate supply. The resulting price increases may result in an overall increase in inflation throughout the economy.

In summary, the major benefits (potential and actual) of remittances for the labor-exporting countries consist of permitting the labor-exporting country to:<sup>7</sup>

1. Ease its foreign exchange constraints and improve the balance of payments
2. Import increased amounts of capital goods and raw materials for industrial development
3. Increase its supply of savings and investment for capital formation and development
4. Cushion the effects of oil price increases
5. Make a net addition to resources
6. Increase the immediate standard of living of recipients
7. Improve its income distribution (if poorer/less skilled migrate)

On the other hand, the costs (again actual and potential) of remittances are that they:<sup>8</sup>

1. Represent an unpredictable (and presumably unreliable) source of foreign exchange

2. Are spent on consumer goods that increase demand, increase inflation, and push up wage levels
3. Result in little or no investment in capital generation activities
4. Have a high import content of consumption demand, which increases dependency on imports and exacerbates balance of payments problems
5. Replace other sources of income, thereby increasing dependency, eroding good work habits, and heightening potential negative effects of return migration
6. Are spent on "unproductive" or "personal" investment (e.g., real estate, housing)
7. Create envy and resentment and induce consumption spending among nonmigrants

As Choucri<sup>9</sup> has noted, what makes the remittance situation so critical and yet so vexing is the convergence of three essential features. First, these are earnings of private citizens; the governments of the region see little of these riches. Second, these earnings may be volatile; they are tied to economic activity in the receiving country. And third, "they are illusionary; they are there but they are not quite there. . . . Indeed, the region's labor-exporting countries are extremely capital-rich; it is their governments that are poor."<sup>10</sup>

Once the earnings are remitted, it is conventionally believed that a variety of economic effects take place. This added income in the hands of consumers, it is thought, translates into more purchasing power, leads to increased aggregate demand, and eventually increases output. Most observers believe, however, that remittances are essentially "squanderables," going into consumer goods, luxury items, and so forth. Generally, almost everyone attributes the growing inflation in the labor-exporting countries to the flow of remittances. On balance there are "goods" and "bads" associated with remittances; how much of each remains is quite unclear.<sup>11</sup>

## EXPLORATORY ANALYSIS

To gain some perspective on the major patterns associated with remittances, a preliminary factor analysis<sup>12</sup> was undertaken to determine the way in which these flows interacted with several of the key macroeconomic variables discussed above. In particular, we are interested in determining whether the foreign exchange earned through remittances impacts in a manner fundamentally different from that earned from other sources, in particular, the earnings from merchandise exports.<sup>13</sup>

Because the way in which remittances have impacted on the local economy<sup>14</sup> is likely to have changed over the period in question, three years were examined: (a) 1976, the initial year for which comprehensive data were available, (b) 1981, the height of the oil boom, and (c) 1985, the final year for which comprehensive data were available.<sup>15</sup>

The main findings<sup>16</sup> for these three years were as follows:

1. For the initial year, 1976, the ratio of remittances to exports was highly correlated with private consumption and the ratio of domestic expenditures (absorption) to GDP. As expected, the ratio of remittances to exports loaded negatively on the resource gap, indicating that countries with relatively large percentages of their foreign exchange earned through remittances tend to have deficits in their balance of payments.

2. Increases in the share of remittances in exports also appear to have reduced the share of investment in absorption (and, to a much lesser extent, the share of investment in GDP). There do not appear to have been any applicable price effects at this time associated with the composition of foreign exchange earnings.

3. Significantly, the correlation pattern for the share of merchandise exports in total export earnings is considerably different from that of remittances. Increases in the share of merchandise export earnings tend to be associated with increased rates of investment and reduced rates of consumption.

4. Merchandise export earnings may also have had a lower import component than remittances (as evidenced by their slightly negative loading on the import factor, compared with the positive loading of remittances).

By 1981, the picture had changed to the extent that:

1. Remittances, while still tending to increase private consumption, appear to have weakened in this regard. This is especially the case for consumption as a share of domestic expenditures. On the other hand, the inflationary impact of remittances may have increased somewhat.

2. Merchandise exports, on the other hand, appear to be losing their positive impact on investment. Although they were still negatively associated with consumption, this effect also appeared weaker than in 1976.

3. The relative effects of remittances (positive) and merchandise exports (negative) on imports may have strengthened a bit over the 1976-1981 period.

Finally, by 1985:

1. The positive association of remittances with private consumption, while still positive, appears to have weakened even further. The same also appears to be the case with investment.

2. Merchandise exports also seem to be less associated with the rates of consumption and investment.

3. Although remittances appear to have become more associated with higher import levels, merchandise exports were also strengthening their loading on this variable, but with a negative sign. Both remittances and merchandise exports seem to have developed a stronger relationship with inflation, with remittances strengthening inflationary pressures and merchandise exports reducing them.

To sum up, there appears to be considerable evidence that the composition of foreign exchange earnings in the Arab world affects a number of important macroeconomic variables. As suggested by some of the descriptive writings on the labor-exporting countries, it appears that remittances may increase the overall level of consumption while reducing investment. The opposite appears to occur as the share of merchandise exports increases.

Increased remittances may also induce higher levels of imports and inflation, again in contrast to the pattern associated with merchandise exports. However, these last relationships appear considerably weaker than the consumption/investment linkages.

The strongest pattern appears to be that between remittances and consumption. Other factors could also affect the share of consumption in GDP and total expenditures. Increased levels of government expenditures are often said to have a large direct consumption component, plus an indirect one through the effect of increased volumes of public sector wages and salaries on individual consumption patterns. On the other hand, government expenditures in the Arab world tend to have a high investment component, and this effect may predominate to reduce the amount of resources used for consumption.

Finally, in recent years, it has been suggested that balance of payments deficits in developing countries have stemmed in large part from efforts of governments to maintain standards of living in the face of deteriorating export markets and the increased costs of imports, especially oil.

To examine the importance of these factors, further analysis was undertaken to determine the way in which they may have impacted on several macroeconomic aggregates in the exporting countries. The results are summarized in Table 7.

### *Private Consumption*

1. At the beginning of the period under consideration, 1976, government expenditures were competing with the private sector for resources. This effect was strongest for private sector consumption's share of total domestic expenditures.

2. To a certain extent, the government effect was offset through balance of payments deficits—given a share of government expenditures in either GDP or total expenditures, increased balance of payments deficits facilitated increased levels of consumption.

3. At this time remittances were weakly positive in increasing private consumption's share in both GDP and total expenditures, with the total expenditures case the stronger of the two.

4. In contrast, merchandise exports were weakly negative (but never statistically significant) in affecting the share of private consumption.

TABLE 7

**Arab Labor-Exporting Countries:  
Economic Impacts Associated With Remittances  
(direction of impact)**

Year, external inflow	Private consumption	Investment	Growth	Inflation
1976				
Remittances	+(weak)	- (weak)	insig	+
Merchandise exports	- (weak)	+ (weak)	+	insig
1981				
Remittances	+	-	insig	+
Merchandise exports	insig	insig	+	insig
1985				
Remittances	+	-	insig	+
Merchandise exports	-	+	+	insig

By 1981:

1. Governments in the Arab world were no longer competing with the private sector for resources, in the sense that increases in the government share of either GDP or total expenditures did not reduce the corresponding shares of private consumption.

2. The balance of payments deficit, while still significant, was somewhat weaker in facilitating increased shares of private consumption.

3. On the other hand, remittances were beginning to play an important role in expanding private consumption. This effect was important for the private sector's share of both GDP and total domestic expenditures.

4. Finally, merchandise exports were still having a relatively weak negative effect on consumption.

By 1985:

1. Government expenditures were still competing weakly with the private sector. The resource gap, however, tended to offset this effect in the case of the private sector's share of GDP, but not its share of total expenditures.

2. Remittances were clearly increasing consumption, and merchandise exports played an even stronger role in reducing the shares of private consumption in both GDP and domestic expenditures.

In general, therefore, the results tend to support the view that the composition of foreign exchange earnings plays a role in the macroeconomic evolution of the Arab labor exporters. Increasing the importance of foreign exchange earnings appears to expand the share of a country's resources devoted to private consumption. The relevant question at this point is which expenditure category decreases its claims of economic resources when consumption expands. A logical candidate is investment.

### *Investment*

Based on the consumption findings above, we can assume that government expenditures have a large enough investment component as to affect the overall shares of investment in GDP and absorption. On the other hand, increased balance of payments deficits appear to have been used to maintain consumption levels.

Several interesting patterns were found:

1. At the beginning of the period in question (1976), increased government expenditures tended to increase the share of investment in both GDP and total expenditures. However, government expenditures were no longer a significant factor when merchandise exports were taken into account.

2. The balance of payments deficit also appears to have played a role in expanding investment's share of GDP, but not its share of total expenditures.

3. From the point of view of the present article, it appears that at this time increased remittances reduce the relative importance of investment, whereas merchandise exports increase the share of output and expenditures devoted to investment.

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4. These trends were reinforced over time so that by 1985 remittances were significantly reducing investment, whereas merchandise exports were associated with increased shares of investment in both GDP and total consumption.

### *Growth*

Growth in developing countries is in part a simple function of capital formation. Although other factors contribute to economic expansion, their ability to sustain growth in the absence of new capital formation is limited. Put differently, autonomous increases in productivity, a major source of growth in the advanced countries, often play a diminished role in the less developed world.<sup>17</sup> In the absence of significant increases in productivity, increased output can come from the fuller utilization of existing resources.

Based on the results in the previous two sections, we hypothesize that, in addition to expanded investment, growth could be accelerated through increased demand for underemployed resources. These could exist either in the consumer goods sector or in investment goods. As noted, relative increases in remittances have tended to expand the share of consumer goods in overall output, and merchandise exports have performed a similar role in affecting the shares of investment. To control for the effects of population growth and the expansion of government expenditures, these variables were also included in the analysis.

The main findings for the impact of remittances on growth (1976-1985) were as follows:

1. By itself, investment accounts (during this period) for a little over 4 percent of the observed fluctuations in Arab-world growth rates.

2. However, the growth in remittances did not make a further contribution to growth. On the other hand, the increased growth in merchandise exports contributed to overall growth, adding about 20 percent to the explanatory power of expanded investment.

3. After controlling for investment and foreign exchange inflows, other variables such as population or expanded govern-

ment expenditures do not appear to have played a significant role in the region's overall patterns of growth during this period.

### *Inflation*

The fact that remittances did not significantly add to growth during this period suggests that the labor-exporting countries had limited amounts of excess capacity in the consumer area. If this was in fact the case, we might anticipate that increased levels of remittances would contribute to inflationary pressures in the region.

Several other factors are present and need to be controlled for before any inflationary role can be ascribed to remittances. High rates of overall growth could cause inflationary pressures to build simply through demand outrunning supply. On the other hand, many of the countries in the region have, through increased levels of imports (financed either from oil revenues or foreign assistance), been able to partially contain inflation. If our image of the transmission process stemming from remittances is correct, inflation originating from this source should increase as remittances are spent on consumer goods, the production of which is constrained due to capacity limitations.

Since the foreign exchange emanating from merchandise exports appears to have a relatively greater chance of flowing into capacity-creating capital formation, we would anticipate increased rates of foreign exchange originating from this source either to be neutral or to reduce the overall rate of inflation.

Incorporating these considerations into the analysis, it was found that remittances have tended to have a strong inflationary impact over the 1976-1985 period. This result holds regardless of how we define remittances. In contrast, merchandise exports have tended to reduce inflationary pressures, but this relationship is weak at best.

### CONCLUSIONS

Several years ago, a major study examining the role of labor migration in the development process identified the major con-

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troversies surrounding the impact of remittances on the labor-exporting countries:

At the heart of the question are the twin issues of labor and remittances. . . . Can remittances be channeled into productive investment, or are they, because of their dispersion, doomed to underwrite expanded imports of newly desired consumer goods, to finance food imports due to decline in agricultural production, and thus fuel inflation in land and home construction? Despite the foreign exchange and balance of payments advantages, do remittances help the development process or, like drug dependence, do their existence and current uses primarily feed the need for more foreign exchange and exacerbate the balance of payments process, thus increasing the need for ever more remittances and the accompanying dependency on receiving countries?<sup>18</sup>

The results presented above shed some light on these questions, at least as they pertain to the Arab world. In general, we would have to argue that remittances, while no doubt raising the overall standard of living of recipients in the labor-exporting countries, contribute marginally at best to the development process. Remittances have not been channeled in significant volumes into productive investment, nor have they facilitated higher rates of overall growth. Instead, they have been a major contributing factor to the increased rates of inflation in the region, and have possibly compounded the balance of payments problems faced by the labor exporters.

One can only speculate at this point as to the inability of remittances to make a more positive impact on the economies of the labor exporters. However, it has been fairly well documented<sup>19</sup> that, in contrast to the foreign exchange earnings associated with merchandise exports, a large volume of remittances travel through unofficial, informal, or even illegal channels. As a result, these funds are not easily tapped through taxes by governments, nor are they effectively mobilized by the organized financial system.

In addition to limiting the contribution these funds can make to the region's development efforts, this fact has several implications. First, traditional monetary and exchange rate policies are difficult to implement in the labor-exporting countries simply because the impacts stemming from these policies are difficult to anticipate, given limited knowledge as to the volume of foreign exchange actually in the country. Second, a large volume of

remittances must flow out of the receiving countries, reflecting the general underdevelopment of the local financial system.

## NOTES

1. F. Kirwan, "Labor Exporting in the Middle East: The Jordanian Experience," *Development and Change* (January 1982): 63-64.

2. Cf. N. Choucri, "The Hidden Economy: A New View of Remittances in the Arab World," *World Development* (1986): 687-712, for an excellent discussion of the problems associated with the reported figures.

3. P. Hallwood, "Labor Migration and Remittances Between OPEC Members and Non-Oil LDCs," *Middle East Review* (Spring 1987): 42.

4. Data are from the Arab Monetary Fund, *Balance of Payments and External Public Debt of Arab Countries: 1976-86* (Abu Dhabi: Arab Monetary Fund, 1988).

5. Hallwood, "Labor Migration," p. 42.

6. Cf. H. Chenery and A. M. Strout, "Foreign Assistance and Economic Development," *American Economic Review* (1966): 679-733; and H. Chenery, "The Structuralist Approach to Economic Development," *American Economic Review* (1975), for the theoretical reasons underlying this proposition.

7. S. S. Russell, "Remittances From International Migration: A Review in Perspective," *World Development* (June 1986): 678.

8. Ibid.

9. N. Choucri, "Migration in the Middle East: Old Economics or New Politics?" *Journal of Arab Affairs* (Spring 1988): 3-4.

10. Choucri, "Migration," p. 4.

11. Ibid., pp. 11-12.

12. An excellent description of this technique is contained in R. J. Rummel, *Applied Factor Analysis* (Evanston, Ill.: Northwestern University Press, 1970).

13. In the factor analysis below, remittances and merchandise exports are taken as a ratio to total exports as defined in the national income accounts.

14. For purposes of this study, countries with positive remittances throughout the period in question and included in the analysis were: Jordan, Algeria, Syria, Somalia, Egypt, Morocco, Yemen Arab Republic, PDR Yemen, Tunisia, and Sudan. Because of missing data, Lebanon was not included in the analytical part of the study. Countries with an outflow of remittances were: Saudi Arabia, Oman, Kuwait, Libya, Mauritania, and Bahrain. Because of missing data, Qatar and Iraq were not included in the analysis.

15. National income account data used is from the Arab Monetary Fund, *National Accounts of the Arab Monetary Fund Countries, 1974-85* (Abu Dhabi: Arab Monetary Fund, 1987); balance of payments figures are from Arab Monetary Fund, *Balance of Payments*.

16. A detailed description of the methods of analysis together with a complete set of findings are given in R. E. Looney, "Macroeconomic Impacts of Worker Remittances in Arab World Labor Exporting Countries," Naval Postgraduate School, Department of National Security Affairs Working Paper (July 1989); and R. E. Looney, "The Economic Consequences of Labor Exportation in the Middle East," Naval Postgraduate School, Department of National Security Affairs Working Paper (August 1989).

17. The classic paper developing this argument is H. Bruton, "Productivity Growth in Latin America," *American Economic Review* (December 1967).
18. M. M. Kertz, C. B. Keely, and S. M. Tomasi, eds., *Global Trends in Migration: Theory and Research on International Population Movements* (Staten Island, N.Y.: Center for Migration Studies, 1981), p. xxv.
19. N. Choucri, "Hidden Economy," pp. 697-712.